



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

SWA3-2
SWA3-3-OH
Job Sheet 175468



Part No: SWA3-3-OH

Job Qty: 1 ea

Part Name: Electric Swivel 3,000 lb Safe Work Load (1,360 kg)



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 4/5/18

Job Tracking No: RA195 - M816-07

Due Date: 4/6/18

Created By: Linda Lacelle

Type: Stock

Description:

Note: DWG SWA3-3 Rev 3 IPP Rev A 18.03.05 New issue DP verify DD

Ship Via:

002759

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
100	Start up Operation	1 Ea		4/5/18	0.00	0.00	Start Up Small Fab-4	W	
110	Small Fab	1 pcs		4/5/18	0.00	1.00	Small Fab-9		AP
120	QC	1 pcs		4/5/18	0.00	0.00	QC5		
170	Small Fab	1 pcs		4/6/18	0.00	1.00	Small Fab-9		AP
180	QC	1 pcs		4/6/18	0.00	0.00	QC5		24 18-4-24
185	DC	1 pcs		4/6/18	0.00	0.00	DC		
190	Packaging	1 pcs		4/6/18	0.00	0.00	Packaging3-2		Smbs
200	QC21-FG	1 Ea		4/6/18	0.00	0.00	QC21	ml 18/04/04	APR 25 2018

Part Op 110 - TEST ASSEMBLY. DISASSEMBLE ASSEMBLY. INSPECT DAMAGE PART.

Descriptions: 170 - RE-ASSEMBLE. ***All assembly to be done in accordance with manual*** TEST ASSEMBLY.

185 - Photocopy blue file and create labels

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
SWA3-3-AR	Electric Swivel 3,000 lb Safe Work Load (1,360 Kg)	1 pcs (1 ea)	100-Start up Operation	
188-FPSS-832-1/4	Set Screw	1 Ea (1 ea)	170-Small Fab	5027242
330	Rotary Connector	1 (1 ea)	170-Small Fab	
92210A303	Flat Socket Cap Screw	4 pcs (4 ea)	170-Small Fab	5027240 5031242
EL-PLUG-F	3-Prong Female Spade Plug	1 Ea (1 ea)	170-Small Fab	5050761
EL-PLUG-M	3-Prong Male Spade Plug	1 Ea (1 ea)	170-Small Fab	5054451
EL314-SJTOW	3 Wire	6 ft (6 ea)	170-Small Fab	5047767
SWA3-100	Upper End - Swa3 Swivel	1 Ea (1 ea)	170-Small Fab	
SWA3-200	Lower End	1 Ea (1 ea)	170-Small Fab	
SWA3-300	Wire Clamp	2 Ea (2 ea)	170-Small Fab	5029399
SWA3-400	Button Head Screw	2 Ea (2 ea)	170-Small Fab	5046195
SWA3-500B	Contact Spacer	1 Ea (1 ea)	170-Small Fab	5029402
SWA3-600	O-Ring	1 Ea (1 ea)	170-Small Fab	5029403
SWA3-700	Ball Bearing	32 Ea (32 ea)	170-Small Fab	5058762
SWA6A-1900	Female Spade Terminal - 1/4"	6 Ea (6 ea)	170-Small Fab	5054299

GREASE .7 BATCH: M138724

LOCTITE 242 BATCH: M138762

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____ Date : _____ _____ _____	DISPOSITION _____ _____ _____	 AGAINST DEPARTMENT/PROCESS Part: SWA3-3 Job No: 175468 Serial No/Batch: S060470 Revision: 3 Inspector: _____ Date: 04/12/18 Container No: S060470 DART AEROSPACE 1270 Aberdeen Street Hawkebury, ON K6A 1K7 CANADA TEL: 1 813 632-5200 Email: sales@dartaero.com www.dartaerospace.com Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging Supplier ☐ Engineering Quality ☐ Other ☐ MRB (QSI042) Approval _____ _____ _____ Completed By _____ _____ Lead hand / Supervisor Approval Verification _____ _____ QC / QA Coordinator Approval _____ _____
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Root Cause			FAULT CATEGORY		
Environment	☐	Nc	☐	Pressure/Forced	☐
Design	☐	Operator	☐	Bending	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐
Material	☐	Use for Testing	☐	Cuffs	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐
Substation	☐	Process Improvement	☐	Marks/Chatter	☐
Past Expiry Date	☐	Manufacturing Process	☐		☐
Misidentified	☐	Past Due	☐	OTHER :	☐

Job Allocations				
Operation	Component Part	Required	Inventory	Allocated
100-Start up Operation	SWA3-3	1	0	0
170-Small Fab	188-FPSS-832-1/4	1	91	0
	330	1	0	0
	92210A303	4	76	0
	EL-PLUG-F	1	28	0
	EL-PLUG-M	1	53	0
	EL314-SJTOW	6	1,074	0
	SWA3-100	1	0	0
	SWA3-200	1	0	0
	SWA3-300	2	0	0
	SWA3-400	2	24	0
	SWA3-500B	1	0	0
	SWA3-600	1	0	0
	SWA3-700	32	140	0
	SWA6A-1900	6	292	0
Part Specifications				
Specifications could not be found.				

Plex 4/5/18 8:15 AM dart.lacelle.linda

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐							
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval				
Description Work Order Deviation				Disposition							
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐		No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐		Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐		Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐		Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	
				OTHER : _____							

Inspection Sheet Complete RA195

Customer QA Ref #

0

Part Number	Batch / Serial #	Quantity	Part Complete	Rev/CHG Current	New Paperwork	New Labels	Disposition	Work order #	Work order instructions
SWA3-3	M816-07	#VALUE!	☐ yes	☐ yes	☐ yes	☐ yes	CUSTOMER SUPPLIED	S040449	Perform overhaul. Return to customer.
0		#VALUE!	☐ yes	☐ yes	☐ yes	☐ yes			
0		#VALUE!	☐ yes	☐ yes	☐ yes	☐ yes			
0		#VALUE!	☐ yes	☐ yes	☐ yes	☐ yes			
0		#VALUE!	☐ yes	☐ yes	☐ yes	☐ yes			
0		#VALUE!	☐ yes	☐ yes	☐ yes	☐ yes			

QC Approval: P.D. _____

Date: 3-Mar-18 _____

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : ☐					

Inspection Sheet Complete RA195

Customer QA Ref #

0

Part Number	Batch / Serial #	Quantity	Part Complete	Rev/CHG Current	New Paperwork	New Labels	Disposition	Work order #	Work order instructions
SWA3-2	M816-07	#VALUE!	☐ yes	☐ yes	☐ yes	☐ yes	CUSTOMER SUPPLIED	S040449	Perform overhaul. Return to customer.
0		#VALUE!	☐ yes	☐ yes	☐ yes	☐ yes			
0		#VALUE!	☐ yes	☐ yes	☐ yes	☐ yes			
0		#VALUE!	☐ yes	☐ yes	☐ yes	☐ yes			
0		#VALUE!	☐ yes	☐ yes	☐ yes	☐ yes			
0		#VALUE!	☐ yes	☐ yes	☐ yes	☐ yes			

QC Approval: P.D. _____

Date: 3-Mar-18 _____

**skyservice****Work Order Traveler**
Sky Service F.B.O. Inc.

10105 Ryan Avenue, Dorval, Quebec, H9P 1A2

TCCA AMO 53-89 / EASA 145.7142 / BDA AMO 385

WO #: MWO35580	Customer: Dart Aerospace Ltd.	Dept: NDT YUL	Reference: PO039522
Descr:	PN:	S/N:	Qty: 1
Make:	Model:	Reg:	A/C S/N:
TSN:	CSN:	TSO:	
Task: UNSCHEDULED			Sequence: 1

Work Required:

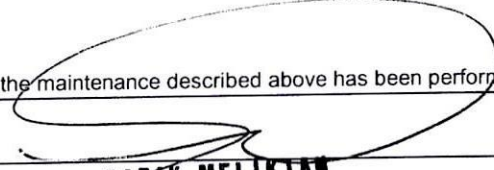
CARRY OUT NDT ON:

2 ELECTRIC SWIVEL 3000lb , P/N# SWA3-3-OH , J/S# 173678 , 175468

1 ELECTRIC SWIVEL 10,000 lb , P/N# SWA10A-4-OH , J/S# 175469

Action Taken:						Date:	Initial/Stamp:
MPI C/O IAW ASTM E-1444M-12 ***NO CRACK FOUND*** MAGBENCH S/N 208123 CAL DUE: 23-JUL-2018 POWDER 14A BATCH# MPO13600 CARRIER II BATCH# MPO20165						APR 09 2018	 
Description	Location	P/N	Qty	Batch	S/N Off	S/N On	

I certified that the maintenance described above has been performed in accordance with the applicable standard of airworthiness.

Signature: 	ACA/SCA Stamp 	Date: APR 09 2018
Name: RAFIK MELIKYAN		



Electric Swivel
SWA3

Work Order 175468

Customer _____

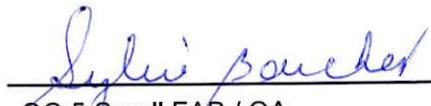
Number of Wires 2

Date 2018 / 04 / 24

Serial Number M816-07

Number of Cycles	Load (Lbs.)	Action	Pass/Fail
1	3,000	Check for Conductivity against all wires.	- PASS
1	3,000	Check all wires for grounding against swivel body.	- PASS
1	1,500	Check for Conductivity against all wires.	- PASS
1	1,500	Check all wires for grounding against swivel body.	- PASS
1	750	Check for Conductivity against all wires.	- PASS
1	750	Check all wires for grounding against swivel body.	- PASS
1	0	Check for Conductivity against all wires.	- PASS
1	0	Check all wires for grounding against swivel body.	- PASS

Test Conducted By: ALAIN PATRY
Technician

Signature: 
QC 5.Small FAB / QA

Submit



Electric Swivel
SWA3

Work Order 175468

Customer _____

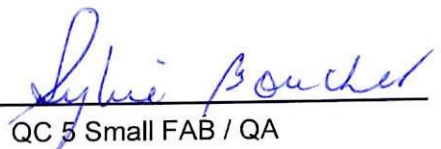
Number of Wires 2

Date 2018/04/24

Serial Number M816-07

Number of Cycles	Load (Lbs.)	Action	Pass/Fail
1	3,000	Check for Conductivity against all wires.	- PASS
1	3,000	Check all wires for grounding against swivel body.	- PASS
1	1,500	Check for Conductivity against all wires.	- PASS
1	1,500	Check all wires for grounding against swivel body.	- PASS
1	750	Check for Conductivity against all wires.	- PASS
1	750	Check all wires for grounding against swivel body.	- PASS
1	0	Check for Conductivity against all wires.	- PASS
1	0	Check all wires for grounding against swivel body.	- PASS

Test Conducted By: ALAIN PATRY
Technician

Signature: 
QC 5 Small FAB / QA

Submit

RA195

overhaul

SWA3-3 # MB16-07
SWA3-2

1803.03

HYDRO ONE NETWORKS INC.

helicopter services

Item	Swivel		
Part No.	SWA3-3	Serial No.	MB16-07
Removed From Helicopter	Longline Assy #1	Date	Jan 26/19
Reason for Removal	O/H		
Repairable	☒	Scrap	☐
Repairs to be Made at Base	☐	By Others	☒
Action to be Taken	Send to O/H		
Time	Since New	Since o/h	Signed <i>KPL</i>

(over)

unserviceable

- IMPORTANT -

FINAL OVERHAUL
COULD NOT BE
SERVICED AGAIN.

ALAIN PATRY